

IN THE CLAIMS

Please amend the claims as follows:

1. (CURRENTLY AMENDED) A method for centering a liquid drop (2) at a given location of a surface (4), ~~characterized in that it consists~~ comprising the step of forming at this location a flared hollow (6) such that, at any point (CP1) of the contact limit between the drop and the hollow, said hollow has a curvature smaller than or opposite to that of a circle (TC) tangent to the hollow surface at said point and at a symmetrical point (CP2) of this surface.
2. (CURRENTLY AMENDED) The method of claim 1, ~~characterized in that~~ wherein the flared hollow (6) has the shape of a truncated cone with an axis perpendicular to said surface.
3. (CURRENTLY AMENDED) The method of claim 1, ~~characterized in that~~ wherein the flared hollow (6) has the shape of the upper central portion of a torus having an axis perpendicular to the surface.
4. (CURRENTLY AMENDED) A method for centering a liquid drop (14) on the external surface of a convex surface (16), ~~characterized in that it consists~~ comprising the step of giving this surface at any point (CP1) of the contact limit with the drop a shape such that this surface has a curvature greater than that of a circle (TC) tangent to this surface at this point and at a symmetrical point (CP2) of this surface.
5. (CURRENTLY AMENDED) The method of claim 4, ~~characterized in that it consists~~ comprising the step of forming the convex surface (6) by revolution against said axis of an arc of

a circle having a radius smaller than that of said tangent circle.

6. (CURRENTLY AMENDED) A variable-focus lens, ~~including~~ comprising:  
a wall made of an isolating material (4),  
a drop of a ~~first~~ an isolating liquid (2) arranged on an area of a first surface of the wall,  
a ~~second~~ conductive liquid (8) covering the first surface and the drop, the first and second liquids being non-miscible, having different optical indexes and substantially the same density,  
and

means (12) for applying an electric voltage (V) between the conductive liquid and an electrode (10) arranged on the second surface of said wall,

~~characterized in that~~ wherein the drop is ~~placed~~ centered in a flared hollow (6) ~~of the wall~~  
~~according to the method of claim 1~~ that has been formed in the wall so that, at any point (CP1) of the contact limit between the drop and the hollow, said hollow has a curvature smaller than or opposite to that of a circle tangent to the hollow surface at said point and at a symmetrical point of this surface.

7. (CURRENTLY AMENDED) The variable-focus lens of claim 6, ~~characterized in that~~  
wherein:

the electrode (10) is a sheet metal,

the flared hollow (6) is a truncated cone formed by embossing said sheet metal, centered on an axis (O) perpendicular to the first surface, and the bottom of which is pierced with a centered hole (11), and

the isolating material wall (4) is a transparent plastic film flattened against the electrode

and the walls of the hollow, and which covers said hole.

8. (CURRENTLY AMENDED) The variable-focus lens of claim 6, ~~characterized in that~~  
wherein:

the electrode (10) is a sheet metal,

the flared hollow (6) is a truncated cone formed by machining said sheet metal, centered on an axis (O) perpendicular to the first surface, and the bottom of which is pierced with a centered hole (11), and

the isolating material wall (4) is a transparent plastic film flattened against the electrode and the walls of the hollow, and which covers said hole.

9. (NEW) A variable-focus liquid lens comprising:

a transparent dielectric enclosure layer (4) having a first and second surfaces;

an axis (O) associated with the dielectric enclosure layer, oriented orthogonal to the first surface;

a hollow (6) defined on the first surface of the dielectric enclosure layer, the hollow being centered on the axis (O);

a first electrode (10) provided on the second surface of the dielectric enclosure layer and having a hole (11) centered on the axis (O);

a drop of an isolating liquid (2) placed in the hollow and centered on the axis (O);

a conductive liquid (8) covering the drop of the isolating liquid and the first surface of the dielectric enclosure layer, the two liquids being non-miscible, having different optical indices and substantially the same density, wherein a dioptré formed between the isolating liquid and the

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conductive liquid forming a surface of the liquid lens, the optical axis of which is the axis (O);

a second electrode (12) in contact with the conductive liquid for applying an electric voltage (V) between the conductive liquid and the electrode (10); and

the hollow having a curvature, wherein at any point (CP1) of contact limit between the drop and the hollow, the hollow's curvature is smaller than or opposite to that of a circle tangent to the hollow's surface at the point of contact limit.

10. (NEW) The variable-focus liquid lens of claim 9, wherein the first electrode (10) is a sheet metal, the hollow (6) is a truncated cone formed by embossing the sheet metal, and the dielectric enclosure layer (4) is a plastic film flattened against the first electrode.

11. (NEW) The variable-focus liquid lens of claim 9, wherein the first electrode (10) is a sheet metal, the hollow (6) is a truncated cone formed by machining the sheet metal, and the dielectric enclosure layer (4) is a plastic film flattened against the first electrode.

12. (NEW) The variable-focus liquid lens of claim 9, wherein the second electrode (12) is immersed in the conductive liquid.

13. (NEW) The variable-focus liquid lens of claim 9, wherein the second electrode (12) is a conductive deposition performed on the first surface of the dielectric enclosure.